

Please amend the application as follows.

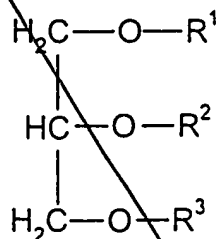
IN THE CLAIMS:

Cancel claims 37, 38, 43 and 44.

Replace claims 1-36, 39-42, 45 and 46 with the following revised claims.

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(Amended) A pharmaceutical formulation comprising at least one bisphosphonate and one or more of an additive agent, said additive agent being present in an amount sufficient to provide an enhanced absorption of the bisphosphonate, and said additive being selected from the group consisting of

- a surfactant;
- an ampholytic surfactant;
- an anionic surfactant;
- a cationic surfactant;
- a bile salt;
- a soap and a fatty acid, and a salt thereof;
- a lipid with the exception of a medium chain glyceride or a mixture of medium chain glycerides having the formula



wherein R¹, R² and R³ are the same or different and each represent a hydrogen atom or an alkanoyl chain having 6 to 18 carbon atoms, wherein at least one of R¹, R² and R³ is an alkanoyl group;

- Alc*
- an oil;
 - an enamine;
 - a chelating agent;
 - a phenothiazine;
 - a fatty acid derivative of carnitine or a peptide;
 - a substance selected from the group consisting of azone, concanavalin A, a phosphate and a phosphonate derivative;
 - a product of a Maillard reaction;
 - a polymer;
 - a chitosan and a chitosan derivative; and
 - combinations thereof.

2. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a nonionic surfactant.

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3. (Amended) The pharmaceutical formulation according to claim 2, wherein the nonionic surfactant is a sugar glycoside or a sugar fatty acid ester.
 4. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a lipid.
 5. (Amended) The pharmaceutical formulation according to claim 4, wherein the lipid is a phospholipid.
 6. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is an oil.
 7. (Amended) The pharmaceutical formulation according to claim 6, wherein the oil is soy bean oil or sunflower oil.
 8. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a chelating agent.
 9. (Amended) The pharmaceutical formulation according to claim 8, wherein the chelating agent is EDTA, EGTA or citric acid.
 10. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a fatty acid derivative of carnitine or a peptide.
 11. (Amended) The pharmaceutical formulation according to claim 10, wherein the additive of the fatty acid derivative of carnitine or a peptide is palmitoyl-DL-carnitine.

12. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a polymer.
13. (Amended) The pharmaceutical formulation according to claim 12, wherein the polymer is a polyacrylic acid.
14. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a block copolymer.
15. (Amended) The pharmaceutical formulation according to claim 14, wherein the block copolymer is a poloxamer, a poloxamine or meroxapol.
16. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a saponin.
17. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a biodegradable polymer.
18. (Amended) The pharmaceutical formulation according to claim 17, wherein the biodegradable polymer is polyactid acid or polyglycolic acid.
19. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a combination of a lipid and a surfactant.
20. (Amended) The pharmaceutical formulation according to claim 19, wherein the combination of the lipid and the surfactant is monoolein and sodium taurocholate, or monoolein and Tween 80.

21. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a combination of a lipid of non-phospholipid character and a phospholipid.

~~22. (Amended) The pharmaceutical formulation according to claim 21, wherein the combination of the lipid of non-phospholipid character and the phospholipid is a medium chain glyceride and a lecithin.~~

23. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a combination of a lipid and a block copolymer.

24. (Amended) The pharmaceutical formulation according to claim 23, wherein the combination of the lipid and the block copolymer is monoolein and Pluronic F 127.

25. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a combination of a surfactant and an oil.

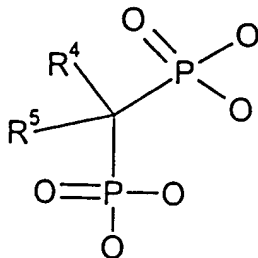
26. (Amended) The pharmaceutical formulation according to claim 25, wherein the combination of the surfactant and the oil is a sucrose fatty acid ester and soy bean oil.

27. (Amended) The pharmaceutical formulation according to claim 1, wherein the additive is a combination of a polymer and a lipid.

28. (Amended) The pharmaceutical formulation according to claim 27, wherein the combination of the polymer and the lipid is polycarbophil and monoolein.

29. (Amended) The pharmaceutical formulation according to claim 1, wherein said additive is in the form of an emulsion or a microemulsion.

30. (Amended) The pharmaceutical formulation according to claim 1, wherein the bisphosphonate has the formula II



II

Alcont
wherein

R⁴ is H, OH or Cl, and

R⁵ is

- (a) alkyl with 1 to 6 carbon atoms, optionally substituted with amino, alkylamino, dialkylamino or heterocyclyl;
- (b) halogen;
- (c) arylthio or chlorosubstituted arylthio;
- (d) cycloalkylamino with 5 to 7 carbons; or
- (e) saturated five or six membered nitrogen containing, heterocyclyl with 1 or 2 heteroatoms.

31. (Amended) The pharmaceutical formulation according to claim 30 wherein the bisphosphonate has the formula II

wherein

R⁴ is H or OH and

R⁵ is

(a) alkyl with 1 to 6 carbon atoms, optionally substituted with amino, alkylamino, dialkylamino, or heterocyclyl;

(d) cycloalkylamino with 5 to 7 carbons; or

(e) saturated five or six membered nitrogen containing heterocyclyl with 1 or 2 heteroatoms.

32. (Amended) The pharmaceutical formulation according to claim 30 wherein the bisphosphonate has

the formula II

wherein

R⁴ is OH and

R⁵ is

(a) alkyl with 1 to 6 carbon atoms, optionally substituted with amino, alkylamino, dialkylamino or heterocyclyl;

(d) cycloalkylamino with 5 to 7 carbons; or

(e) saturated five or six membered nitrogen containing heterocyclcyl with 1 or 2 heteroatoms.

33. (Amended) The pharmaceutical formulation according to claim 30 wherein the bisphosphonate is selected from the group consisting of:

4-amino-1-hydroxybutylidene-1,1-bisphosphonic acid (alendronate),
N,N-dimethyl-3-amino-1-hydroxypropylidene-1,1-bisphosphonic acid (mildronate, olpadronate),
1-hydroxy-3-(N-methyl-N-pentylamino)propylidene-1,1-bisphosphonic acid (ibandronate),
1-hydroxy-2-(3-pyridyl)ethylidene-1,1-bisphosphonic acid (risedronate),
1-hydroxyethylidene-1,1-bisphosphonic acid (etidronate),
1-hydroxy-3-(1-pyrrolidinyl)propylidene-1,1-bisphosphonic acid,
1-hydroxy-2-(1-imidazolyl)ethylidene-1,1-bisphosphonic acid (zoledronate),
1-hydroxy-2-(imidazo[1,2-a]pyridin-3-yl)ethylidene-1,1-bisphosphonic acid (minodronate),
1-(4-chlorophenylthio)methylidene-1,1-bisphosphonic acid (tiludronate),
1-(cycloheptylamino)methylidene-1,1-bisphosphonic acid (cimadronate, incadronate),
6-amino-1-hydroxyhexylidene-1,1-bisphosphonic acid (neridronate) and pharmaceutically acceptable salts thereof.

34. (Amended) The pharmaceutical formulation according to claim 33 wherein the bisphosphonate is alendronate (4-amino-1-hydroxybutylidene-1,1-biphosphonic acid) or a pharmaceutically acceptable salt thereof.

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~~35. (Amended) The pharmaceutical formulation according to any one of claims 1 to 34, wherein the formulation is adapted for oral administration.~~

~~36. (Amended) The pharmaceutical formulation according to any one of claims 1 to 34, wherein the formulation is adapted for non colonic delivery.~~

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39. (Amended) The pharmaceutical formulation according to any one of claims 1 to 34, wherein the formulation is in particulate form.

40. (Amended) The pharmaceutical formulation according to claim 39 wherein the particulate form is solid or semisolid.

41. (Amended) The pharmaceutical formulation according to claim 39 or 40, wherein the bisphosphonate is in the form of micronized powder.

42. (Amended) A process for the preparation of a pharmaceutical formulation according to any one of claims 1 to 34, comprising forming a mixture of (i) at least one bisphosphonate, (ii) an additive and (iii) a pharmaceutically acceptable carrier.

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~~45. (Amended) A method for inhibiting bone resorption which comprises administering to a~~
mammal in need of such treatment an effective amount of a pharmaceutical formulation according to any one of claims 1 to 34.